

Supplements to Promote Collaborative Research in Proteomics Applied to Obesity

PURPOSE

Description:

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) announces for fiscal years 2005-2006 the availability of funds to supplement existing NIDDK-funded research projects to support and encourage scientific collaboration among NIDDK grantees, as well as with other members of the scientific community interested in using proteomics technology to study obesity. The goal is to bring together ideas and approaches from the proteomics field and the obesity field. It is essential, however, that the proposed research be within the overall scope of the parent award. The NIDDK intends to solicit for new applications later in 2005/2006 and these supplements might provide an excellent opportunity to collect preliminary data and assemble appropriate teams of collaborating investigators.

This document describes: (1) the nature of the administrative mechanisms available to promote research collaborations under this program, (2) the application procedures, (3) the evaluation criteria that will be used to determine the relative priority of the requests for supplemental funding, and (4) the post-award obligation for Grantees who are awarded a supplement.

BACKGROUND

The NIDDK supports a wide range of research projects focused on the underlying mechanisms of obesity and the translation of these discoveries into new therapies and strategies for disease treatment and prevention. On the other hand proteomic approaches have been successfully used for studying complex biological problems and for the identification of disease markers. Recent developments in proteomics indicate that the technologies available are already sufficiently advanced to approach many biological questions relevant to obesity. Some of these technologies include: The use of isotopically labeled reagents coupled to mass spectrometry for the comparison of two different biological states (e.g. disease versus control); two-dimensional gel electrophoresis coupled to mass spectrometry; protein or antibody arrays; yeast two-hybrid systems. Projects like the identification of obesity's co-morbidities markers require clinical expertise for the characterization of the patients and proteomics expertise for the characterization of sera/plasma proteome. Thus with this announcement we intend to promote collaborative research in proteomics as it applies to obesity.

Prior to submitting an application, investigators interested in developing novel research collaborations should first contact their NIDDK Program Director to discuss their ideas. General inquiries are also welcome. Requests for support must be made in writing (see Application Procedures and Deadlines).

Examples of projects that the NIDDK is soliciting through this announcement include but

are not limited to:

- Study the regulation of fat storage and mobilization applying proteomic technologies (e.g. study the network that links many of the fat regulatory genes).
- Characterization of the plasma/serum proteome or other bio-fluids proteome for the identification of obesity's co-morbidities markers.
- Characterization of the peripheral and visceral adipose tissue proteome for understanding the development of obesity and obesity's co-morbidities.
- Application of proteomic technologies for studying the network involved in energy homeostasis.
- Application of proteomic technologies for further understanding the relation of lipid metabolism and catabolism to obesity.
- Determine chemical and functional differences in the proteome of specific cells or tissues comparing lean and obese states or as function of diet.
- Comparison of the proteome of specific cells and tissue that might be important in the development of obesity and its co-morbidities.

ADMINISTRATIVE MECHANISMS FOR PROMOTING RESEARCH COLLABORATIONS

These collaborations would typically involve 2 investigators focused on achieving specific research objectives. The Principal Investigator (PI) must be a NIDDK-funded investigator and the other investigator must have active research funding support, not necessarily from NIDDK.

These supplements are meant to support joint research that would not be possible to conduct expeditiously, if at all, in the absence of an additional collaborator and additional support. The specified collaborative research project(s), which must be within the scope of the current grant, must be clearly different from any active or previously funded research topic. In addition the researcher(s) with expertise in the clinical/biological aspect of obesity should have no history of prior collaboration with the researcher(s) with expertise in proteomics.

Additional activities encompassed in these collaborative projects may include, but are not limited to: sharing of unique reagents, expertise and specific-purpose equipment; shared support for students, post-doctoral fellow or research staff; travel to enhance collaboration; and joint publications.

ELIGIBILITY REQUIREMENTS

- Only NIDDK-funded investigators may submit and be the PI on these applications.
- The PI must have an active R01, R37, P01, UO1, U19, Phased Innovation Award (combined R21/R33), Phase II SBIR (R44), or Phase II STTR (R42) grant with at least one full year remaining at the time of anticipated funding.
- At the time of application, all collaborating investigators must have an active source of research funding support, but it may be from other peer-reviewed sources.
- Investigators may come from the same or different departments in an institution, or from different institutions.

- Racial/ethnic minority individuals, women, and persons with disabilities are encouraged to participate in this opportunity for APRC supplemental support.

SPECIAL REQUIREMENTS

Budget/Administrative Issues

All funding will be in the form of administrative supplements to existing NIDDK funded research grants. The number of awards and level of support will depend on the number and diversity of meritorious applications received. The following limits apply:

- The direct cost for the supplement should not exceed \$75,000 per year, for a maximum of one year and is limited to the life of the PI's current grant.
- Indirect costs (facilities and administrative) are permitted, if necessary, at the grantee institution's negotiated rate. These must be detailed in the application.
- In all cases, a detailed explanation/justification must be included in the application with a clearly defined budget. These supplements are not subject to the modular grants requirements.
- PI and collaborator salary support is **not** permitted.
- At the conclusion of the funded activity, the PI must submit to the NIDDK Program Director a Final Progress Report that includes a description of the activities and outcomes and an assessment of the success in meeting the stated objectives.

APPLICATION PROCEDURES AND DEADLINES

No specific forms or format are required, although appropriate pages from the PHS 398 form are recommended (see [Office of Extramural Research](#) web site for electronic PHS 398 forms, Applications should contain specific information appropriate to the proposed collaboration (see below). **All** applications must contain:

- A cover letter listing the eligible parent grant, signed by the PI, collaborating investigators at the same institution as the PI, and the appropriate official from the grantee institution.
- A letter of intent to collaborate from each collaborating investigator located at an institution different from that of the PI, cosigned by the appropriate official from the institution.
- A biosketch for the PI and each collaborating investigator.
- Documentation of active research grant funding (i.e., NIH, other federal, private sources, etc.) for all collaborating investigators.
- All supplement requests must have a project title different from that of the parent grant.

The PI is responsible for providing the following additional information:

- An abstract of the proposed research including the specific aims, objectives, and projected outcomes.
- A description of how the research is programmatically relevant to the NIDDK.

- A summary of each collaborator's specific contributions to the project.
- A research plan for the project (not to exceed 5 typed pages).
- Justified budgets for each consortium member and a summary budget for the entire consortium. Budgets should clearly specify F&A costs.

Note: All human and animal studies must receive the appropriate IRB or IACUC review and approval prior to be funded. Verification of this approval must be sent to the NIDDK program director. Since projects funded by this announcement are supplemental to existing grants and within the scope of those studies, modifications to assurance approvals are usually all that are needed.

APPLICATION INFORMATION

Where to send applications:

Applications (1 original plus 5 copies) should be sent to:

Dr. Salvatore Sechi
 Director, Proteomic Program
 Division of Diabetes, Endocrinology, and Metabolic Diseases
 National Institute of Diabetes and Digestive and Kidney Diseases
 6707 Democracy Blvd. Rm 611
 Bethesda, MD 20892-5460

Submission deadline and start date:

Applications must be received on or before February 1, 2005.
 Applications will be reviewed in March and the budget start date should be calculated on a funding start date of May 1, 2005.

REVIEW CONSIDERATIONS AND CRITERIA

The review will take place within NIDDK with possible consultation with outside experts.

The review criteria are:

- The novelty or uniqueness of the opportunity presented by the proposed activity.
- The novelty or uniqueness of the collaboration.
- The appropriateness of the scope of work proposed, given the time and budget requested.
- The potential benefit to obesity research.
- The degree to which the proposed activity adds value to the underlying funded research (parent grant) of the PI and the collaborating investigators; the relationship and relevance of the research to the parent grant.

INQUIRIES

Investigators funded by NIDDK who are interested in the activities described in this document are strongly encouraged to contact their NIDDK program director. However, for general questions concerning this announcement, investigators may direct their inquiries to:

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